Claims of the Application:

1. (Previously presented) A compound which is a crystalline Form III of anhydrous moxifloxacin monohydrochloride having substantially the same X-ray diffraction pattern as shown in FIG. 1.

2-5. (Canceled)

6. (Previously presented) The compound of claim 1 having a ^{13}C solid state NMR spectrum comprising a peak at about 107 ppm.

7. (Previously presented) The compound of claim 1 having substantially the same ^{13}C solid-state NMR spectrum as shown in FIG. 2.

8. (Previously presented) The compound of claim 1 having an infrared absorption spectrum comprising absorption bands at about 1159 cm^{-1} and 2706 cm^{-1}.

9. (Previously presented) The compound of claim 1 having substantially the same infrared spectrum as shown in FIG. 3.

10. (Previously presented) The compound of claim 1 having a differential scanning calorimetry thermogram, which exhibits an endotherm peak at about 246° C.

11. (Previously presented) The compound of claim 1 having substantially the same differential scanning calorimetry thermogram as shown in FIG. 5.

12. (Previously presented) The compound of claim 1 having substantially the same analytical characterization data as shown in FIGS. 2, 3, 4, and 5.

13. (Previously presented) A composition comprising moxifloxacin monohydrochloride as a solid, wherein at least 80% by weight of said solid moxifloxacin monohydrochloride is the crystalline form III of anhydrous moxifloxacin monohydrochloride of claim 1.

14. (Canceled)

15. (Currently amended) The composition of claim 13, wherein at least 90% by weight of said solid moxifloxacin monohydrochloride ~~monohydrate~~ is in said crystalline Form III.

16. (Currently amended) The composition of claim 13, wherein at least 95% by weight of said solid moxifloxacin monohydrochloride ~~monohydrate~~ is in said crystalline Form III.

17. (Currently amended) The composition of claim 13, wherein at least 99% by weight of said solid moxifloxacin monohydrochloride ~~monohydrate~~ is in said crystalline Form III.

18. (Previously presented) A pharmaceutical composition, which comprises a pharmaceutically effective amount of the crystalline Form III of anhydrous moxifloxacin monohydrochloride of claim 1 and one or more pharmaceutically acceptable carriers or diluents.

19-20. (Canceled)

21. (Previously presented) The pharmaceutical composition of claim 18, which is a solid dosage form for an oral administration.

22. (Previously presented) The pharmaceutical composition of claim 18, wherein said solid dosage form is a tablet.

23. (Previously presented) The pharmaceutical composition of claim 18, which is in dosage unit form containing from about 0.5 to about 800 mg of moxifloxacin monohydrochloride.

24. (Previously presented) A process for preparation of the crystalline Form III of moxifloxacin monohydrochloride of claim 1, said process comprising: a) refluxing azeotropically a starting moxifloxacin monohydrochloride in a solvent selected from the group consisting of lower branched esters, chained acid esters, aliphatic ketones and aliphatic hydrocarbon solvents; b) cooling the refluxed solvent while stirring the mixture until a solid separates; and c) isolating said separated solid thereby obtaining said crystalline Form III of anhydrous moxifloxacin monohydrochloride.

25. (Previously presented) The process of claim 24, wherein said solvent is selected from the group consisting of tertiary butyl acetate, cyclohexane, toluene, methylisobutylketone, and mixtures thereof.

26. (Previously presented) A process for preparation of the crystalline Form III of moxifloxacin monohydrochloride of claim 1, said process comprising: a) dissolving moxifloxacin hydrochloride in a lower alkyl alcohol to obtain a solution; b) adding to the solution an anti solvent, in which moxifloxacin hydrochloride is poorly soluble; c) cooling the mixed solvents until a solid separates; and d) isolating said solids thereby obtaining said crystalline Form III of moxifloxacin monohydrochloride.

27. (Previously presented) The process of claim 26, wherein said lower alkyl alcohol is selected from the group consisting of methanol, ethanol, t-butyl alcohol, isopropyl alcohol and mixtures thereof.

28. (Previously presented) The process of claim 26, wherein said lower alkyl alcohol is methanol.

29. (Previously presented) The process of claim 26, wherein said anti solvent is acetonitrile.

30. (Previously presented) The moxifloxacin monohydrochloride produced in accordance with the process of claim 24.

31. (Previously presented) The moxifloxacin monohydrochloride produced in accordance with the process of claim 26.

32. (Previously presented) A method of treating infections caused by susceptible strains of streptococcus pneumoniae, haemophilus influenzae, moraxella catarrhalis, haemophilus parainfluenzae, klebsiella pneumoniae, staphylococcus aureus, mycoplasma pneumoniae, Chlamydia pneumoniae and streptococcus pyogenes, which comprises administering a mammal in need thereof an effective amount of the crystalline Form III of moxifloxacin monohydrochloride of claim 1.

33. (Previously presented) The method of claim 32, wherein said mammal is a human.